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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,379	02/01/2002	Atsuki Inoue	47835/DMC/F179	2407
23363	7590	12/30/2003	EXAMINER	
CHRISTIE, PARKER & HALE, LLP 350 WEST COLORADO BOULEVARD SUITE 500 PASADENA, CA 91105			CHANG, DANIEL D	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/061,379

Applicant(s)

INOUE, ATSUKI

Examiner

Daniel D. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

*Acknowledgement*

Receipt is acknowledged of the Amendment filed October 22, 2003.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshioka (US 6,337,582 B1).

Regarding claims 1 and 4, Yoshioka teaches, in Fig. 6, a low swing charge recycling circuit comprising:

a complementary pass gate stage (22, 24) having driving inputs to receive each of driving input signals, having complementary outputs to produce an output signal on one hand and a complementary output signal on the other and determining a logic operation of the circuit arrangement;

a static low swing driver stage (6, 8, 10) having a signal input to receive an input signal, having a clock input to receive a clock signal, and having complementary outputs to produce low swing complementary signals to each output to be provided to the driving inputs of the complementary pass gate when the clock signal is in one of two states, the static driver stage including a PMOS transistor (41a, 41b) and an NMOS transistor (42a, 42b) provided between at

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least one of (i) a power supply ( $V_{cc}$ ) and an output terminal (S1, S2) and (ii) a ground (GROUND) and the output terminal (S1, S2); and

an equalization stage (16) being connected to the complementary outputs, having a clock input (CLK, CLK') to receive the clock signal and producing complementary signals to the driving inputs of the complementary pass gate stage when the clock signal is in the other state, whereby a charge shared a signal of an intermediate voltage level between those of the complementary outputs is shared between the driving inputs.

Regarding claim 2, Yoshioka teaches, in Fig. 6, that a swing level of the low swing voltage ranges from a ground voltage level (GROUND) to a supply voltage level minus a threshold voltage level ( $V_{cc}$  minus inherent threshold voltage of transistor 40a or 40b).

Regarding claim 3, Yoshioka teaches, in Fig. 6, that the static driver is formed of a plurality of transistors connected in series (40a, 41a, 42a, 43a; 40b, 41b, 42b, 43b).

### ***Response to Arguments***

Applicant's arguments filed October 22, 2003 have been fully considered but they are not persuasive.

Applicant argues, on pages 7-10 of the Amendment filed October 22, 2003, that the voltage swing level of the applicant's invention may change from ground level to  $V_{dd}-V_{th}$ ,  $V_{th}$  to  $V_{dd}$ , or  $V_{th}$  to  $V_{dd}-V_{th}$ .

In response to Applicant's argument that Yoshioka does not include certain features of Applicant's invention, the limitations of which the Applicant relies (i.e., the voltage swing level change from ground level to  $V_{dd}-V_{th}$ ,  $V_{th}$  to  $V_{dd}$ , or  $V_{th}$  to  $V_{dd}-V_{th}$ ) are not stated in the

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claims 1, 3, and 4. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

***Allowable Subject Matter***

Claims 5-7 are allowable.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

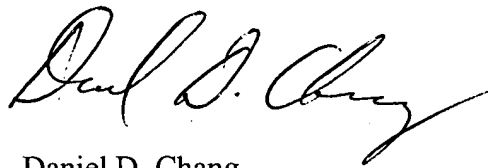
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (703) 306-4549. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on (703) 305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Daniel D. Chang  
Primary Examiner  
Art Unit 2819

DC

**DANIEL CHANG**  
**PRIMARY EXAMINER**